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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,524	02/05/2004	Jeffrey Lloyd	60130-2011;04MRA0100	5397
26096	7590	11/29/2005	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			KRAMER, DEVON C	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/772,524	<b>Applicant(s)</b> LLOYD, JEFFREY	
	<b>Examiner</b> Devon C. Kramer	<b>Art Unit</b> 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 16 is/are allowed.
- 6) ☒ Claim(s) 1-7 9-10 12 14 17-21 23-24 is/are rejected.
- 7) ☒ Claim(s) 8, 11 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2) Claims 1-5, 9, 12, 14, 17-18 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Schiffler (DE 10009212).

In re claim 1, Schiffler provides an air spring assembly comprising: a piston (27), a piston airbag (9) mounted to the piston; and a primary airbag (7) mounted adjacent the piston airbag such that at least a portion of the primary air bag contacts an outer surface of the piston airbag. Please note that the primary air bag is in contact with the outer portion of the piston air bag and the inner portion of the piston air bag is not in contact with the primary air bag.

In re claim 2, Schiffler provides an arrangement where the piston airbag defines a first volume (25) and the primary airbag defines a second volume (11); a change in pressure within the piston airbag changes a diameter of the piston airbag.

In re claims 3-5, please note that it is inherent that a change in diameter of one airbag would affect the spring rate of the other airbag.

In re claim 9, Schiffler teaches a mount on the piston and an outer piston (27). The examiner is calling the entire assembly of Schiffler located interior of the piston air

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bag 9 the piston. Note that the air bags respond to movement of the interior structure and can be considered a piston by definition.

In re claims 12 and 14, Schiffler teaches the method comprising: mounting a primary airbag (7) adjacent a piston airbag (9) such that the piston airbag is located as a rolling surface for the primary airbag, the piston air bag defines a selectively changeable first volume; and the primary air bag defines a selectively changeable second volume, wherein a pressure change with one airbag volume changes the spring rate of the airbag through line (15). Please note that the claim language does not state that the volumes can be change independently of each other. Changing the volume within one air bag inherently changes the spring rate in the other air bag.

In re claim 17-18, see figure 3.

IN re claim 21, see the outer cylindrical element near passage 29 or element 27 and radial port 23.

### ***Claim Rejections - 35 USC § 103***

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4) Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiffler (DE 10009212) in view of Behmenburg et al (2003/0173723).

In re claim 6-7, Schiffler teaches all of the limitations of the air bag except it's unclear in Schiffler how the air bags are attached to form the structure.

Behmenburg et al teaches the use of a first, second and third bands (106, 112, 122) to attach an airbag to a structure.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the bags of Schiffler with first, second, and third band as taught by Behmenburg et al to attach the air bags to ensure air doesn't leak from the device and to ensure operation of the spring if one band should break, further using first and second bands makes for easy assembly.

5) Claims 10, 19-20, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffiths (6604734) in view of Schiffler (DE 10009212).

In re claims 10, 19-20 and 23-24, Griffiths teaches an air suspension system for a vehicle having a frame member (22), the system further comprising: a longitudinal member (14) extending generally lengthways of the vehicle frame member and mountable to the vehicle for pivotable movement about an axis generally transverse to the frame member; and an air spring (16). Griffiths lacks the specific air bag arrangement claimed.

Schiffler teaches the claimed air bag arrangement, see the 102 rejection above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the airbag of Griffiths with the air bag of Schiffler to provide an air spring with a variable spring rate.

***Allowable Subject Matter***

- 6) Claims 15-16 are allowed.
- 7) Claims 8, 11 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

- 8) Applicant's arguments filed 8/30/05 have been fully considered but they are not persuasive. Applicant argues that element 9 of Schiffler is not formed of a flexible material. Please note that this is clearly not the case, element 9 is made of a flexible material and is clear able to move and flex. A translation of the German document has been requested by the examiner.

***Conclusion***

- 9) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C. Kramer whose telephone number is 571-272-7118. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571 )272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DK

Devon C Kramer  
Primary Examiner  
Art Unit 3683

  
DEVON C. KRAMER  
PATENT EXAMINER

11/22/05